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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q62061

Kiyoshi ISHIYAMA

Appln. No.: 09/725,689

Group Art Unit: 2613

Confirmation No.: 1553

Examiner: Anand Shashikant RAO

Filed: November 30, 2000

For: PICTURE ENCODING SYSTEM CONVERSION DEVICE AND ENCODING RATE  
CONVERSION DEVICE

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MAR 25 2004  
TC 2600

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

RECEIVED  
MAR 24 2004  
Technology Center 2600

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

1. Hiriyoyuki Kasai et al., "Study of low delay MPEG-2 video transcoder code rate control schemes," Joho Shori Gakkai Kenkyu Hokoku, 8 October 1999, Vol. 99, No. 82, IPSJ SIG Notes, 99-AVM-26, p. 45-50
2. Japanese Unexamined Patent Application Publication H9-298749, published November 18, 1997.

INFORMATION DISCLOSURE STATEMENT  
U.S. Appln. No.: 09/725,689

3. Japanese Unexamined Patent Application Publication H11-252546, published September 17, 1999
4. Japanese Unexamined Patent Application Publication H11-285002, published October 15, 1999.
5. Gertjan et al., "Transcoding of MPEG bitstreams," Signal Processing: Image Communication, September 1996, Vol. 8, Issue 6, p. 481-500
6. Japanese Unexamined Patent Application Publication H7-107461, published April 21, 1995.
7. Satoshi Nishimura et al., "Development of real time MPEG-2 video transcoder software," Joho Shori Gakkai Kenkyu Hokoku, 4 June 1999, Vol. 99, No. 52, IPSJ SIG Notes, 99-AVM-25, p. 25 through 30

One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed after either a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), but before payment of the Issue Fee, and therefore Applicant is submitting herewith a check for the fee of \$180.00 under 37 C.F.R. § 1.17(p), and a Statement Under 37 C.F.R. § 1.97(e).

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses here with a copy of a corresponding Japanese Office Action dated January 20, 2004 and an English translation of the pertinent portions thereof which cites such documents and indicates the degree of relevance found by the foreign office.

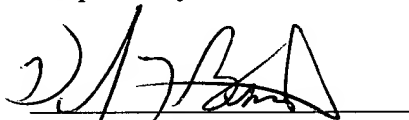
INFORMATION DISCLOSURE STATEMENT

U.S. Appln. No.: 09/725,689

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "H. Bernstein", is written over a horizontal line.

Howard L. Bernstein  
Registration No. 25,665

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: March 22, 2004



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q62061

Kiyoshi ISHIYAMA

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Group Art Unit: 2613

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CONVERSION DEVICE

**STATEMENT UNDER 37 C.F.R. § 1.97(e)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RECEIVED**

MAR 24 2004

Technology Center 2600

Sir:

The undersigned hereby states, upon information and belief:

That each item of information contained in the Information Disclosure Statement filed  
concurrently herewith was first cited in any communication from a foreign patent office in a  
counterpart foreign application not more than three months prior to the filing of said Information  
Disclosure Statement.

Respectfully submitted,

Howard L. Bernstein  
Registration No. 25,665

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

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## Reasons

2. The inventions related to the following claims of the present application could have been easily invented by a person with ordinary knowledge of technology in the field to which the invention belongs prior to the filing of this application based on the inventions recited in the publications below, which had been distributed in Japan or abroad prior to the filing of this application, and therefore cannot receive a patent according to the stipulations of Article 29, Paragraph 2 of the Patent Law.

Note (For a list of the cited literature, see List of Cited Literature)

(1)

Claims: 1 through 8

Cited Literature: 1 through 3

Remarks:

In the section "3.2.2. Step 2: Computation of quantization parameters based on input/output buffer management" of Cited Literature 1, it is stated that quantization steps are determined based on the generated code rate of the input bit stream and output bit stream computed based on the state of the input and output buffers.

Furthermore, in the section "3.2.1. Step 1: Input/output bit stream rate updating control," it is stated that the input and output bit rates are used for finding the quantization steps, and providing a transmission path monitoring means in order to find the input and output bit rates is no more than the addition of well-known art and could be easily conceived of by a person skilled in the art (regarding transmission path monitoring means, see for instance paragraph (0037) of Cited Literature 2).

Furthermore, in Cited Literature 3, it is stated that, in order to prevent image quality degradation and shorten processing time, quantization steps are determined by also using encoding parameters (quantization steps) obtained from a variable length decoder (cf. paragraphs (0018) through (0057)), and also employing encoding parameters obtained from a variable length decoder, as described in Cited Literature 3, in order to prevent image quality degradation and shorten processing time in the invention described in Cited Literature 1 is something that could be easily conceived of by a person skilled in the art.

(2)

Claims: 9 and 13

Cited Literature: 4 and 5

Remarks:

Cited Literature 4 states that quantization steps are adjusted according to the state of the output buffer so that overflow does not occur (cf. paragraph (0020)), and adjusting quantization steps so that underflow does not occur could also be naturally accomplished by a person skilled in the art.

Furthermore, in the invention described in Cited Literature 4, using what is described in Fig. 4 or Fig. 7 of Cited Literature 5 as the encoding scheme conversion unit is something that could be easily conceived of by a person skilled in the art.

(3)

Claims: 10, 14, 16, and 18

Cited Literature: 1, 2 and 5

Remarks:

In the invention described in Cited Literature 1, using what is described in Fig. 4 or Fig. 7 of Cited Literature 5 as the encoding scheme conversion unit is something that could be easily conceived of by a person skilled in the art.

(4)

Claims: 11, 15, 17, and 19

Cited Literature: 3 through 5 or

1 through 3 and 5

Remarks:

In the invention described in Cited Literature 4 or 1, employing decoding parameters obtained from a variable length decoder, as described in Cited Literature 3, when determining the quantization steps, is something that could be easily conceived of by a person skilled in the art.

#### List of Cited Literature

1. Hiruyoyuki Kasai et al., "Study of low delay MPEG-2 video transcoder code rate control schemes," Joho Shori Gakkai Kenkyu Hokoku, 8 October 1999, Vol. 99, No. 82, IPSJ SIG Notes, 99-AVM-26, p. 45-50
2. Japanese Unexamined Patent Application Publication H9-298749
2. Japanese Unexamined Patent Application Publication H11-252546
4. Japanese Unexamined Patent Application Publication H11-285002
5. Gertjan et al., "Transcoding of MPEG bitstreams," Signal Processing: Image Communication, September 1996, Vol. 8, Issue 6, p. 481-500

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#### Record of Prior Art Literature Search Results

- Fields searched                      IPC 7<sup>th</sup> Edition    H04N 7/24-7/68
- Prior Art Literature    Japanese Unexamined Patent Application Publication H7-107461  
                                 Satoshi Nishimura et al., "Development of real time MPEG-2 video transcoder software," Joho Shori Gakkai Kenkyu Hokoku, 4 June 1999, Vol. 99, No. 52, IPSJ SIG Notes, 99-AVM-25, p. 25 through 30